

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

January 15, 2014

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
2020 SW Fourth Avenue, Suite 400
Portland Oregon 97201-4987

HAI Project No. 2708
DEQ ECSI File No. 84

SUBJECT: Progress Report, NW Natural Gasco Property, 7900 NW St. Helens Avenue, Portland, Oregon

Dear Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report summarizing Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural that have occurred relating to the Gasco property during the month of December 2013. NW Natural is completing upland investigatory activities at the subject property under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1.0 Communications and Document Submittals

Several e-mail communications and teleconferences with Anchor QEA and DEQ occurred in December to provide supplemental information as requested by DEQ for their review of the *Draft Human and Ecological Risk Assessment Report*.

In e-mail correspondence dated December 9, 2013 (John Edwards to Dana Bayuk), Anchor QEA, on behalf of NW Natural transmitted example data presentations to be used within the pending *Gasco Source Control Test Status Report*.

In correspondence dated December 12, 2013 (Dana Bayuk to Bob Wyatt), DEQ provided preliminary comments from initial review of the October 2013 *Draft Human Health and Ecological Risk Assessment Report – NW Natural Gasco Site*.

In correspondence dated December 19, 2013 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural provided a letter acknowledging receipt of DEQ comments on the *RI Data Summary Report* and three Field Sampling Plans (Doane Creek; Well Installation; DNAPL Investigation) needed to inform the RI being completed by NW Natural at the Siltronic property. Further, the December 19, 2013 letter provided NW Natural responses to DEQ's November 27, 2012 conditional approval of the *Monitoring Well Installation* and *DNAPL investigation* Field Sampling Plans.

A meeting with representatives of NW Natural and DEQ was conducted on December 17, 2013 to discuss development of a revised sampling strategy for remaining RI soil and sediment data needs within Doane Creek, adjacent to the Siltronic property.

In e-mail correspondence dated December 20, 2013 (Rob Ede to Dana Bayuk), HAI provided a brief summary of agreements that were reached during the December 17, 2013 meeting regarding a revised sampling approach for Doane Creek.

In e-mail correspondence dated December 23, 2013 (Rob Ede to Dana Bayuk) HAI, on behalf of NW Natural, transmitted electronic copy of the *Environmental Monitoring Report, Third and Fourth Quarter 2012, NW Natural Gasco Facility*, dated December 13, 2013.

In e-mail correspondence dated December 24, 2013 (John Edwards to Dana Bayuk), Anchor QEA, on behalf of NW Natural transmitted the December 23, 2013 *Data Report: Groundwater Source Control Extraction System Test for NW Natural Gasco Site*. Hard copies were subsequently provided in correspondence (John Edwards to Dana Bayuk) dated December 26, 2013.

A Program Management Implementation meeting was conducted with DEQ on December 16, 2013 to discuss the NW Natural program management and project schedules.

2.0 Field Work

Site-wide groundwater level and DNAPL measurements were conducted by NW Natural at the Gasco and Siltronic properties on December 4, 2013 comprising the fourth quarter 2013 routine groundwater monitoring event.

HAI field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during December. The system recovered approximately 7 gallons of fluids, primarily DNAPL, during this time.

Tasks related to optimization of the hydraulic control and containment system and the wastewater treatment system were conducted in December 2013.

Baseline DNAPL removal as needed to maintain at levels below the tops of the well sumps, was conducted by Anchor QEA in the following wells near the river shoreline.

- PW-01-80
- PW-2L
- MW-16-45
- MW-18-30
- MW-34L
- MW-38U
- WS-14-161

Discharge of treated water to the City of Portland sanitary sewer was initiated on March 16, 2007 under Temporary Wastewater Discharge Permit 500.022 (expires February 15, 2017). Results from NW Natural's effluent sampling are provided to BES in Discharge Monitoring Reports that are submitted for any month that effluent sampling occurs – which is at least quarterly in accordance with the permit. As of December 20, 2013 a total of 12,938,268 gallons of treated water have been discharged to the sanitary sewer in 2013, of which 6,517,119 gallons were treated groundwater from the source control extraction system, with the remainder being treated groundwater from the LNG containment basin.

3.0 Anticipated Activities January and February 2014

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during January and February 2014 to discuss ongoing project tasks.

A revised Field Sampling Plan to describe an updated approach for Doane Creek soil and sediment data collection is expected to be provided to DEQ for review in late January 2014.

Subject to DEQ approval of the recommendations in the December 23, 2013 *Data Report: Groundwater Source Control Extraction System Test for NW Natural Gasco Site*; the next extraction system test is scheduled to be conducted in February, 2014.

The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, NW Natural has not received DEQ comments on these documents.

- *Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site*, February 19, 2009, Anchor QEA.
- *Final Stormwater Source Control Data Summary Report*, September 2010, Anchor QEA.
- *Request for Concurrence: Discharge of Groundwater Monitoring Purge Water, NW Natural – Gasco Property*, dated May 24, 2012, HAI, 2012.
- *Memorandum – Wastewater Treatment Plant Construction Excavation Activities*, dated August 16, 2013, HAI.
- *Revised Hydraulic Source Control and Containment System Groundwater Model Update Report*, dated October 9, 2013, Anchor QEA.
- *Gasco Upland Human Health and Ecological Risk Assessment Report*, dated October 24, 2013, Anchor QEA. (Preliminary comments received December 12, 2013)
- *Summary of Shakedown Operation of Gasco Source Control Hydraulic Containment and Treatment System*, dated November 5, 2013, Anchor QEA.
- *Fill Water-Bearing Zone Trench Investigation Work Plan*, dated November 18, 2013, Anchor QEA.
- *Data Report: Groundwater Source Control Extraction System Test for NW Natural Gasco Site*, dated December 23, 2013, Anchor QEA.

Should you have any questions, please contact the undersigned.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rob Ede", with a stylized flourish at the end.

Rob Ede, R.G.
Principal

robe@hahnenv.com

c: Ms. Sandra Hart, NW Natural (electronic only)
Mr. Bob Wyatt, NW Natural (electronic only)
Ms. Patty Dost, Pearl Legal Group PC (electronic only)
Ms. Sarah Riddle, Pearl Legal Group PC (electronic only)
Mr. Carl Stivers, Anchor QEA, L.L.C. (electronic only)
Mr. John Edwards, Anchor QEA, L.L.C. (electronic only)
Mr. Ben Hung, Anchor QEA, L.L.C. (electronic only)
Mr. Ryan Barth, Anchor QEA, L.L.C. (electronic only)
Mr. Henning Larsen, DEQ NW Region (electronic only)
Mr. Tom Gainer, DEQ NW Region (electronic only)
Mr. Keith Johnson, DEQ NW Region (electronic only)
Mr. Myron Burr, Siltronic Corporation (electronic only)
Ms. Kristine Koch, Region 10 EPA (electronic only)
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Mr. Rene Fuentes, Region 10 EPA (electronic only)
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